

## SOCIAL DEVELOPMENT IN NIGERIA: ISSUE OF WATER SUPPLY AND SANITATION

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### ABSTRACT

This paper provides an overview of water supply and sanitation sub-sector in Nigeria. The importance of water ranging from its significance in direct use as drinking to its being a vital resource in food production can not be over emphasized. Human existence is hinged on water resources in four ways: production, welfare, ecosystem and water-related hazard. It is fundamental to note that there has been a continuous decline in the proportion of Nigerians with access to safe water despite the efforts of the government. At the national level, about 67% Nigerians have access to safe water (table 1). This may be due to a number of factors but the major factor identified is the issue of management. Therefore, to find a lasting solution to institutional, policy and political problem in the sector, a dynamic and holistic management model is proposed in the study. This model (fig.1) will remove duplication of roles by institutions and donor agencies. It also eliminates bottlenecks found in the existing water supply and sanitation management and allows public, private and end-user participation.

**KEYWORDS:** Accessibility, Management, Safe Water, Sanitation, Social Development and Water Resources.

### INTRODUCTION

The main goal of any society is to have socio-economic development which implies an improvement in the quantity, quality and equity in production and distribution of goods and services among the people of a nation. The effective distribution of available wealth and an equitable access to the benefit of growth is the social dimension of development (NISER, 2000).

Social development must be seen as a means to bring people further and more meaningfully into development planning and execution and to ensure that development effects actually reach their lowest target and that the social problems which arise in and as a result of the change process are effectively dealt with (Akeredolu-Ale, 1982).

A review of social development in Nigeria will thus entail systemic analysis of the trends of indicator of quality of life (QOL) and well-being of the people. However, this paper focuses on access to safe water situation in Nigeria and the review of the management of rural water supply and sanitation sub sector, which has been identified as one of the major factor contributing to the low-level of access in the country.

### ACCESS TO SAFE WATER AND SANITATION: NIGERIA SITUATION

Accessibility to safe water is very vital to reducing the frequency of associated water borne diseases and can be used to assess the state of human health and sanitation. Therefore, this indicator has a crucial influence on human and sustainable development.

Access to safe water is measured by the percentage of the population with safe drinking in their dwelling or located within a convenient distance from the users' dwelling (UN, 1996). According to the United Nation,

Table 1. ACCESS TO SAFE WATER BY STATES IN NIGERIA, 2000 - 2006

STATES \ YEAR	2000	2001*	2002*	2003*	2004*	2005*	2006*	MEAN
ABIA	62.08	65.23	68.38	71.53	74.68	77.83	80.98	71.53
ADAMAWA	54.19	55.35	56.51	57.67	58.83	60.16	62.31	57.86
AKWA - IBOM	18.06	19.62	21.18	22.74	24.3	25.86	27.42	22.74
ANAMBRA	38.28	38.68	39.08	39.48	39.88	39.28	40.28	39.28
BAUCHI \ GOMBE	79.68	80.06	80.44	80.82	81.2	81.58	81.96	80.82
BENUE	46.87	47.03	47.19	47.35	47.51	47.67	47.83	47.35
BORNO	89.42	89.85	90.28	90.71	91.14	91.57	92	90.71
CROSS RIVER	24.81	26.04	27.27	28.5	29.73	30.96	32.19	28.5
DELTA	64.71	65.2	65.69	66.18	66.67	67.16	67.65	66.18
EDO	60.32	60.53	60.74	60.95	61.16	61.37	61.58	60.95
ENUGU \ EBONYI	33.59	35.23	36.87	38.51	40.15	41.79	43.43	38.51
IMO	38.22	39.14	40.06	40.98	41.9	42.82	43.74	40.98
JIGAWA	99.85	99.4	98.95	98.5	98.05	97.6	98.5	98.7
KADUNA	84.28	84.87	85.46	86.05	86.64	87.24	87.84	86.05
KANO	87.93	88.1	88.27	88.44	88.61	88.78	88.95	88.44
KATSINA	79.73	80.5	81.27	82.04	82.81	83.58	84.35	82.04
KEBBI	80.6	80.7	80.8	80.81	80.82	80.92	81.02	80.81
KOGI	54.98	56.9	58.82	60.74	62.66	64.58	66.5	60.74
KWARA	84.38	84.9	85.42	85.94	86.46	86.98	87.5	85.94
LAGOS	93.5	94.16	94.82	95.48	96.14	96.8	97.5	95.49
NIGER	54.38	55.19	56	56.81	57.62	58.43	59.24	56.81
OGUN	68.15	69.52	70.89	72.26	73.63	75	76.37	72.26
ONDO \ EKITI	56.82	56.88	56.94	57	57.06	57.12	57.18	57
OSUN	74.45	74.89	75.33	75.77	76.21	76.65	77.09	75.77
OYO	80.69	80.7	80.71	80.8	80.9	81	81.1	80.84
PLATEAU \ NASSARAWA	54.42	55.47	56.52	57.57	58.62	59.67	60.72	57.57
RIVERS \ BAYELSA	60.67	61.41	62.15	62.89	63.63	64.37	65.11	62.89
SOKOTO \ ZAMFARA	75.89	77.19	78.49	79.79	81.09	82.39	83.69	79.79
TARABA	22.23	23.53	24.83	26.13	27.43	28.73	30.03	26.13
YOBE	95.78	95.96	96.14	96.32	96.5	96.68	96.86	96.32
FCT	52.82	54.56	56.3	58.04	59.79	61.52	63.26	58.6
NATIONAL	66.48	66.78	67.1	67.41	67.72	68.03	68.34	67.4

Source: NISER 2000

\* Estimated values for the years

safe water includes treated surface water and untreated but uncontaminated water as that from protected boreholes, springs and sanitary wells.

Access to safe water is also measured by the number of people who have reasonable means of getting an adequate amount of clean water, expressed as a percentage of the total population. It reflects the health of a country's people and the country's ability to collect clean and distribute water. In urban areas 'reasonable' access means there is a public fountain or water spigot located within 200 meters of the household. In rural areas, it implies that members of the household do not have to spend excessive time each day fetching water. Water is safe or unsafe depending on the amount of bacteria in it.([www.glossary](http://www.glossary) ,April 2008).

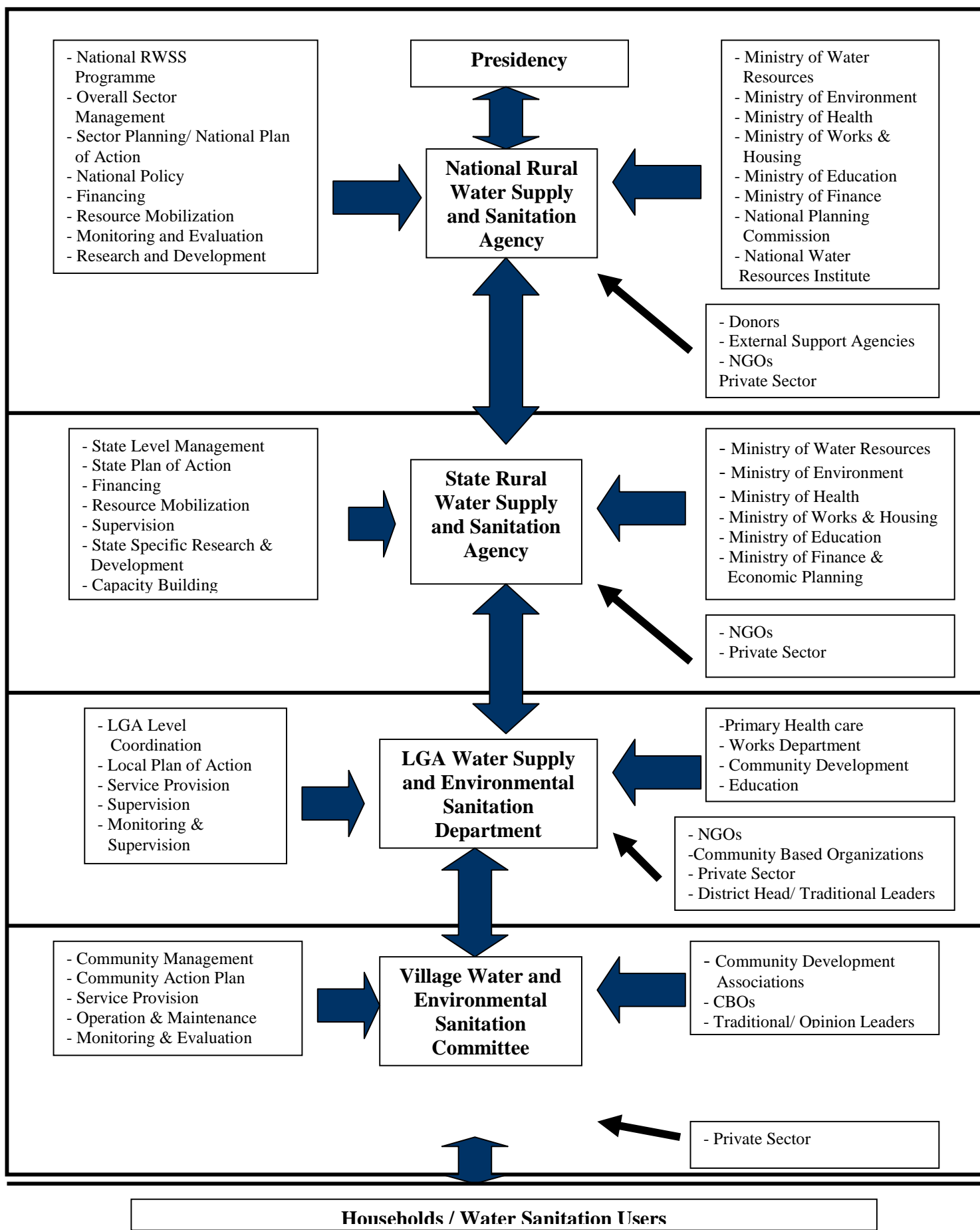


Fig.1. Proposed Management Model for Rural Water Supply and Sanitation Programme (Adapted from Agberemi, 2003)

In Nigeria, it has been estimated that over two third of the diseases affecting the people and in particular the under-five age group can be attributed to poor water supply (lack of access to good water) and unsanitary conditions.

Apart from high mortality rates caused by water and sanitation diseases, these diseases also account for high morbidity resulting in low productivity, high rate of absenteeism from work, high drop out rates from schools especially among girls and poverty. (Agberemi, 2003).

The situation Assessment and Analysis conducted by National Planning Commission and UNICEF in 2001 put the infant and under-five mortality rates at 105 and 178 per1000 live births respectively (NPC/UNICEF, 2001). Apart from these, it is estimated that over 200,000 deaths occur annually due to water and sanitation diseases.

On the national level, less than seven out of ten Nigerians have access to safe water. It can be observed from table 1 that over 50% of states in the Federation including the Federal Capital Territory have figures below the national average(67.40).All the states in the north west zone of the country have the proportion of their people with access to safe water being higher than the national average. While the reverse holds for the south –east and south-south zones, they all recorded figures below the national average. In the south west zones, only Ondo / Ekiti had figures below the national averages.

The general picture is that there has been a continuous decline in the proportion of Nigerians with access to safe water .This may be due to the fact the infrastructural facilities provided are not growing (if not diminishing) at the same rate with the population growth rate.

#### IMPORTANCE OF WATER

Water is indispensable for human existence. Its significance lies in its direct use as drinking water and to its being a vital resource in food production. It is a sine qua non for the continuous functioning of terrestrial as well as aquatic ecosystem (FAO, 2000).

Agriculture is the number-one user of water word wide ,accounting for about 70 percent of all freshwater withdrawn from lakes ,rivers, and aquifers .The daily drinking water requirement per persons is 2 – 4 liters ,but it takes 2000 to 5000 liters to produce one person's daily food(FAO,2007).

Water is involved in a multitude of processes and functions, some of which are quite complexes. In most of its functions, water is an essential resource inasmuch as there is no substitute .It can be used more-or-less efficiently, but it cannot be replaced. This is the case in food production and generally in biological processes. These qualities alone imply that significant value must be attached to water and its functions (FAO, 2000). Unfortunately, there are a few places where sufficient water is readily available for all demands. Hence, it is necessary to recognize the significance of water in its various functions. In numerous articles and discussions, attempts have been made to explain and estimate the value of water. These attempts illustrates wide spectrum of perspectives. They also show that it is an inherently difficult task to arrive at operational guidelines on how to value water as a basis for management decisions. Difficulties are partly due to the complexity of water, but it is also an extremely difficult task to weigh and compare the different values that water generates in its various functions. It is for example, a challenging task to compare and weigh social benefits-such as improved health against economic returns and environmental concerns. Yet, with increasing and incompatible demands on a limited amount of water, questions will be raised like; how much water should be allocated to households, to irrigated agriculture, and to industry? 'How much of the available flow should be reserved for in-stream functions'? And 'on what conditions should provisions be made'?

The answers are waiting .Many of these questions are not amenable to being answered through scientifically approved methods. Instead, they are questions that have to be subjected to political evaluation and decision. This is almost universally accepted in the case of water provision for basic human needs. Access to adequate amounts of drinking water is generally given top priority in water policy (FAO, 2000). In the Millennium Development Goal (MDG) in Africa, water (Access and Security) is placed in the forefront of the regional agenda of development programmes in Africa. Water security and accessibility in Africa is therefore central to sustainable development, poverty reduction, education and health.

Water resources (including aquatic plants and animals and hydropower, aesthetic and other services ) come from many sources (including surfaces and ground water) and have many uses: domestic needs, irrigation, fishing ,industry, waste disposal e t c. Understanding the concept of access to safe water, along with other linked concepts of security , entitlements and conflicts as they relate to water, are fundamental to a full understanding of the role of water resources in the lives and livelihoods of human race especially the world poor (Soussan 2003 ).

According to Sousan 2003, people depend upon water resources in four key ways:

1. Production: As direct inputs into production, agriculture is the most obvious and the viability of agriculture is closely linked to reliable access to water. Water is an important input into many other forms of production, including fishing, tree and cultivation around homestead, livestock, small scale manufacturing such as pottery, brick making and tanning services such as laundering and others. Water is also vital for many types of manufacturing and other larger economic activities that provide employment for poor people, in cities in particular. The poor often rely on these other production activities to give essential diversity to livelihood and to overcome their lack of assets such as lands.

2. Health Welfare: Globally, 1.1 billion people lack access to improved water supply and 2.4 billion of them lack adequate sanitation .Most (84% for water supply and 83% for sanitation) live in rural areas but the number of urban residents without adequate services is increasing rapidly. The majorities (63% for water supply and 80% for sanitation) of those without adequate services live in Asia, but Sub-Saharan Africa (Nigeria inclusive) has the highest proportion of people without water.

Health hazards where water is a vector are endemic in many regions. There are 4 billion cases of diarrhea each year, causing 2.2 million deaths, mostly of children.

Millions more are affected by malaria, dysentery, schistosomiasis., intestinal worms and other diseases .In extreme conditions, intestinal worms ,cholera, typhoid and other potentially fatal diseases are rife. Both the quality and quantity of water matter greatly, in relation to health issues, and safe and adequate quantities of water are recognized as a pre-condition for an acceptable standard of development.

3. Ecosystem: The flow and quality of water is critical for the ecosystem through which the poor gain access to the natural resources that are the basis of many aspects of their livelihood. Even when water is not a direct input into production, the availability of other important natural resources ( such as forest ,fishing or grazing)on which people depends is contingent on flows of water through ecosystem. It is widely recognized that the rural poor in particular depends more on their local resource base. For example, Rennie and Singh argue that 'Predominantly the poor of the world depend on natural resource, through cultivation, herding, collecting or hunting for their livelihood.

Therefore for their livelihood to be sustainable, the natural resources must be sustained'. Indeed, this relationship between the reductions of poverty and environmental sustainability is the most fundamental concept in sustainable development.

4. Water –related Hazard: The vulnerability of people majorly the poor to water –related hazards such as extreme flood, droughts, major storms landslides, pollution and so on that kill tens of thousands, cause billions of dollars of damage and effects the lives of many millions each year can determine any effort to break the poverty trap and can even cast the not so poor into poverty where the basis of their livelihoods is destroyed by a cataclysmic event. These hazards are not all sudden shocks or extreme events. Around 1.7 billion people live in country that are water stressed, that is, suffer from structural water deficit. This number will rise to 5 billion unless major changes are made to global water management.

From the foregoing, there is need for pragmatic solution to the lack of access to safe water through a holistic management strategy. In view of this, a review of rural water supply and sanitation programme in Nigeria was scrutinized / undertaken.

#### REVIEW OF MANAGEMENT OF RURAL WATER SUPPLY AND SANITATION PROGRAMME IN NIGERIA

The governments under the present political dispensation and other donors / international agencies have invested huge resources in the sector without commensurate impact on the lives of the people especially in rural areas.

This is because a critical review of the management of rural water supply and sanitation sector reveals that;

- There are no distinct rules and responsibility among the implements resulting in duplication of efforts, over concentration of facilities in some areas and waste of scarce resource. All tiers of government, Non Government Agencies (ESAs) are involved, in all aspects of project management ranging from planning, monitoring, operation and maintenance to direct service delivery.
- There is individualistic approach to project with each agency and tiers of government designing and implementation with each agency and their own project implementation with each agency and tier of government designing and managing their own project without any reference to each other .Each agency / government adopts management style best suited to achieve its objective and there is very weak overall coordination of all the projects. From this intervention approach, the moderate achievement made so far could be attributed to the sustained commitments and supports from ESAs such as UNICEF, UNDP, JICA, World Bank, European Commission, DFID, Water Aid and WHO. More could have been achieved if there are concerted efforts in ensuring effective management of the various projects through a well –articulated national rural water and sanitation programme. There is presently no national rural water supply and sanitation programme in the country. There is a general awareness among the practitioners on the existence of national water supply and sanitation policy which was published in the year 2000 providing a good starting point for institutional and management reforms. The policy has however not met the expectation of practitioners as it has been considered not to be comprehensive enough to take care of the diverse nature of the sector, which has resulted in low subscription from states and local government. Generally, the legal framework for effective sector management is weak.
- The planning of rural water supply and sanitation sector is over centralized at the National level without active participation of all other stakeholders. ( Agberemi ,2003)

## PROPOSED MANAGEMENT MODEL FOR EFFECTIVE NATIONAL WATER SUPPLY AND SANITATION

Considerable amount of resources have been invested in the provision of water and sanitation facilities without commensurate impact on the level of access demonstrating the need for a major reform in the management of Rural Water Supply and Sanitation (RWSS) Sub-sector in the country.

Based on the above findings ,working at this rate and adopting the strategies will not keep up with the growing population that needs water and Environmental Sanitation ( WES) facilities not to talk of meeting the Millennium Development Goals. Hence, the need for management reforms that will ensure sustainable development of the sector.

Taking into consideration the prevailing political, economic and social conditions in the country, a management model is being proposed for the sub-sector that will involve institutional and legal re-organization based on clear roles and responsibility for each of the actors.

The proposed model is aimed at promoting decentralization with the objectives of ensuring improved service coverage through effective distribution of resources and maintaining clear assignments of responsibilities among the stakeholders, thereby avoiding duplication of efforts.

The model will give rise to democratic process of participation and will fully incorporate all the actors including benefiting communities in all aspects of programme implementation.

Considering the large percentage of people yet to have access to safe water supply and adequate sanitation in the country and to reduce government bureaucracy and ensure effectiveness, the proposed model is premised on the establishment of National Rural Water Supply and Sanitation Agency to provide overall sector management.

The agency would draw its core staff from all relevant government ministries / agencies. Similar structure should be established at state, LGA and community levels. Each state is expected to establish Rural Water Supply and Sanitation Agency while the LGAs are to have Rural Water Supply and Sanitation Departments and each community to have WES Committee ( fig . 1 ).

This composition would ensure effective coordination of resources and participation of relevant ministries and agencies that hitherto run parallel projects. There will be harmonization of all the projects thereby minimizing duplication of efforts and waste of resources. The management model would enhance development of consolidated national plan within the framework of national rural water supply and within the framework of national rural water supply and sanitation programme for sustained growth in level of access towards meeting the millennium development goal. The proposed model is best suited for sustained sanitation development considering the present on-coordinated arrangement for implementation.

All external finance assistance from donors should be channeled through the national agency for distribution to specific areas based on regional disparity on level of coverage. External Support Agencies and donors are not expected to implement parallel projects and all support should mainstream into the national programme for effective management (Agberemi, 2003).

## CONCLUSION AND RECOMMENDATION

The management of the RWSS sub-sector which cover planning, organizing, coordinating and providing effective leadership for sustainable development is observed to be poor. This paper has highlighted the use of water, access to safe water situation in Nigeria (along side with sanitation and health issues) and the major problem of access to safe water which is management. Some of the major problems against effective management of the sub-sector were also identified. Taking into consideration the prevailing political, economic and social environment in the country, a management model, is being proposed aimed at promoting decentralization with strong coordination and well-defined roles and responsibilities among the

stakeholders. There is need for pragmatic approach to sector reform by involving all the actors towards providing effective water supply and sanitation services.

Another recommendation is that effective sector management can only be achieved if there are genuine commitment, good governance and transparency in the overall development.

The proposed management model can only be effective if all stakeholders are willing to subscribe to the implementation of National Rural Water Supply and Sanitation programme within the recommended framework.

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